# FORM 4

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

# STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person <sup>*</sup> LEBUHN ROBERT	2. Issuer Name and Ticker or Trading Symbol ENZON PHARMACEUTICALS INC [ ENZN]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner										
(Last) (First) (Middle) C/O ENZON PHARMACEUTICALS, INC.	3. Date of Earliest Transaction (Month/Day/Year) 07/01/2004	- Officer (give title Other (specify below) below)										
685 ROUTE 202/206	4. If Amendment, Date of Original Filed (Month/Day/Year) 07/06/2004	6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person										
(Street) BRIDGEWATER NJ 08807	_	Form filed by More than One Reporting Person										
(City) (State) (Zip)												
Table I - Non-Der	Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned											

### Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	ition Date, Transactio Code (Inst		4. Securities Disposed Of and 5)			5. Amount of Securities Beneficially Owned	Form: Direct (D) or Indirect (I)	7. Nature of Indirect Beneficial Ownership
			Code	v	Amount	(A) or (D)	Price	Following Reported Transaction(s) (Instr. 3 and 4)	(Instr. 4)	(Instr. 4)
Common Stock <sup>(1)(2)</sup>	07/01/2004		A		1,989(3)	A	\$ <mark>0</mark>	15,796	D	

#### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g. puts calls warrants options convertible securities)

(e.g., puts, calls, warrants, options, convertible securities)																
	1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transact Code (In 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
					Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

## Explanation of Responses:

1. This filing is an amendment to the Form 4 filed on behalf of Mr. LeBuhn on July 6, 2004 (the "Original Form 4"). The sole purpose of this amendment is to attach a power of attorney and specifically indicate in the signature line that the Original Form 4 was signed by another person on behalf of Mr. LeBuhn. The information reported on Table I of this amendment, including the footnotes below, is the same as the information reported on Table I of the Original Form 4 and is being reported again solely to gain access to the EDGAR system.

2. Restricted stock granted by Enzon Pharmaceuticals, Inc. ("Enzon") pursuant to Enzon's 2001 Incentive Stock Plan as compensation for services as an independent director and qualified under Rule 16b-3(d). The value of the compensation was \$25,000 and the number of shares granted was determined based on the fair market value per share of Enzon's common stock on July 1, 2004, which was \$12.57. 3. 663 of the shares will vest on July 1, 2005, July 1, 2006 and July 1, 2007, respectively, provided that Mr. LeBuhn still serves as a director of Enzon as of such date.

#### Remarks:

Exhibit List 24. Power of Attorney

# /s/ Gary A. Smith (Attorney-in-07/14/2004

fact)

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

## POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints each of Gary Arlen Smith and Kenneth J. Zuerblis, signing singly, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of Enzon Pharmaceuticals, Inc. (the "Company"), Forms 4 and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 4 or 5 and timely file such form with the United States Securities and Exchange Commission and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this Power of Attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

The undersigned hereby revokes any power of attorney previously granted by the undersigned to engage in the actions enumerated above.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 5th day of September, 2003.

/s/ Robert LeBuhn

Signature

Robert LeBuhn

Print Name